

Applicants: Ziegler et al.

Application No.: 10/530,165

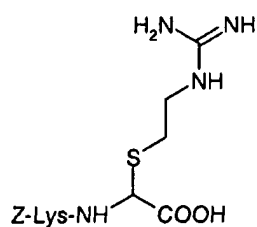
Amendment Under 37 C.F.R. §1.312 dated March 30, 2010

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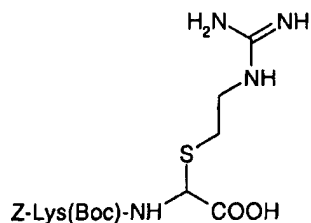
Amendments to the Specification

Please amend the paragraph that appears on page 2, lines 4-11, as follows:

The thiaarginine derivatives of the following formulas A and B



A

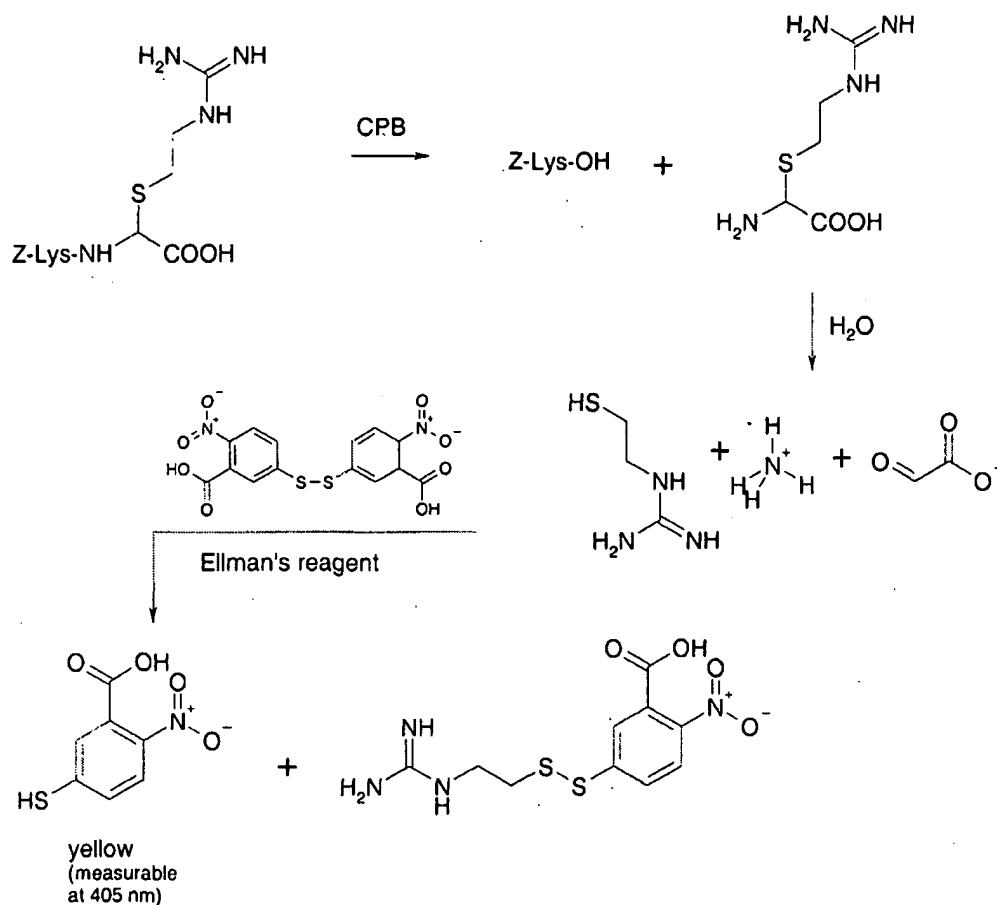


B

have been described as substrates for carboxypeptidase B (Bull. Korean. Chem. Soc. 1998, 19(2), 189-193). These compounds are remarkably split off by carboxypeptidase B (CPB), but hardly by TAFIa. Detection of CPB by means of compound A is carried out according to the following ~~Fig.~~ Scheme 1.

Please amend the paragraph that appears on page 3, lines 1-20, as follows:

~~Fig.~~ Scheme 1



Please amend the paragraph that appears on page 9, lines 1-9, as follows:

Principle: TAFIa is determined as shown in Scheme Fig. 1. In a first step, the substrate is hydrolyzed by TAFIa in such a way that a thioamino acid (thiaarginine or thialysine) is released. These instable intermediates are rapidly decomposed into 2-mercaptoethylguanidine or 3-mercaptopropylamine, respectively. These mercapto compounds react with Ellman's reagent (5,5'-dithio-bis-(2-nitrobenzoic acid)), thereby releasing the strongly yellow 3-carboxy-4-nitrothiophenol that can be measured using a

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spectrophotometer at 405-412 nm. The free thiol content measured is directly proportional to the quantity of substrate hydrolyzed by TAF1a and thereby allows a quantitative analysis of the enzyme activity.